The Files

8 July 1957

[redacted] 25X1

ED-76, Trip Report 25X1

25X1

1. [redacted] 25X1

[redacted] were visited on 2 and 3 July 1957. [redacted] was visited to monitor progress on the various tasks under Contract ED-76. [redacted] was visited jointly with [redacted] personnel to discuss the technical problems involved in the development of the miniaturized data recorder, a new task being developed by [redacted] is sub-contracting portions of the data recorder. The following persons, with security status, were present during conferences at [redacted] 25X1 25X1

[redacted] 25X1

The following persons, with security status, were present during conferences [redacted] 25X1

[redacted] 25X1

2. Progress on the 60-Day Programmer, the Signal Actuated Switch and Time Event Marker, and the 84-Hour Timer (Tasks A, C, and E) is satisfactory. Parts are being assembled for the bulk of the fifty 60-Day Programmers. Assembly will not begin until a larger percentage of the parts are fabricated. Most of the parts for the test devices have been received from the shops.

3. Progress on the Time Event Marker was exhibited in the form of machine drawings of the time code wheels and the wiring matrix. The wheels and the matrix will incorporate etched board techniques. The wiring matrix board will be made by a new etching technique. This technique involves the placing of two networks

on one side of the board; each separated from each other by a thin insulating film. Inter-connection between the two networks is obtained at various points by holes in the film.

4. A prototype model of the 84-Hour Timer was displayed. This model incorporates changes desired in the engineering model such as the winding knob and the legibility of dial graduations. A variable "ON time" cam and a potted connector plug also was incorporated in the unit. A single operating engineering model was delivered to meet a present operational requirement. Five more models are scheduled to be delivered before 15 August 1957.

5. A full day, Wednesday, 3 July, was spent at [redacted] in conferences discussing approaches to the data recorder. Among them were methods of tape drive such as capstan versus reel drive and fidelity of pulse reproduction. Considerable time was spent on methods of speed control, motors, etc. Further discussion involved the nature of various recording heads and various tapes. A Mylar recording tape base having a thickness of ½ mill (.00025 inch) was exhibited as a possible solution to the tape velocity - reel size - playing time paradox. The [redacted] representatives were asked if stretching of this tape will be a problem. They replied that stretching will be insignifigant at the minute forces anticipated in the data recorder. Tape "print-through" was not considered to be a serious problem either. It was generally agreed that the first approach will involve capstan drive, ½ mill tape, 4 inches per second tape speed, and ½ mill head gap. The recorder will be able to use any thickness ½ inch tape, however, making it versatile to available tape thicknesses.

6. [redacted] is planning to place a young nordic engineer on the recorder project. This gentleman, [redacted] however, will not receive his U. S. citizenship papers until late in August. His native land was Germany. I have instructed [redacted] to keep [redacted] in limited access to the project until his papers come through and SECRET clearance with this Agency is obtained.

7. It appears that [redacted] is doing considerable work for TRW. [redacted] has or has had approximately 90 persons in their organization cleared by this Agency. The principal persons involved in our recorder development are cleared by this Agency. It was thought, however, inadvisable to "cut in" these people to our identity until necessary in order to avoid any confusion with TRW. I was simply introduced [redacted] as "our customer." Because of the conglomeration of various degrees of security clearances, our identity was left as [redacted] customer.

OC-E/R&D-EP/DLN:cmf (8 July 1957) [redacted]
cc: R&D Subject File
Monthly Report (2)

SECRET CONFIDENTIAL